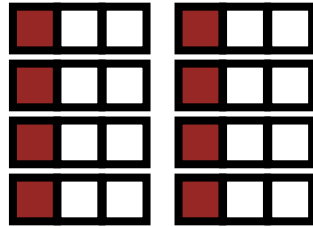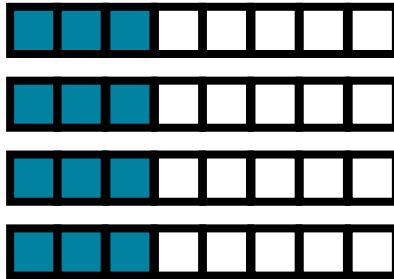# Multiplying Fractions Practice

For each of the following, <u>draw</u> what the answer would look like (following the examples used in class) and write the answer as a number.
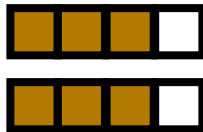
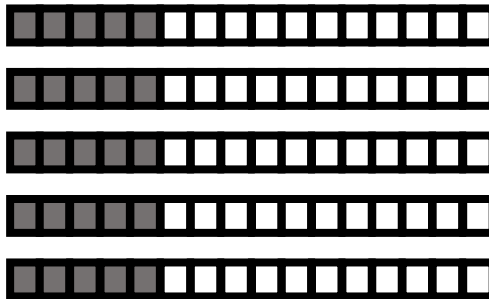1. $8 \times \dfrac{1}{3} = \dfrac{8}{3}$
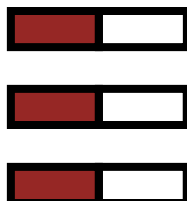

2. $4 \times \dfrac{3}{8} = \dfrac{12}{8}$

3. $2 \times \dfrac{3}{4} = \dfrac{6}{4}$


4. $5 \times \dfrac{5}{16} = \dfrac{25}{16}$

5. $3 \times \dfrac{1}{2} = \dfrac{3}{2}$

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For each of the following, draw what the answer would look like (following the examples used in class), then write out the numbers and find the answer.

6. You are having a party for co-workers and plan to buy some 6 ft. party subs and some pizzas. You estimate that 8 people will each eat $\frac{1}{8}$ of a sub. How much sandwich would you need to buy for those 16 people?
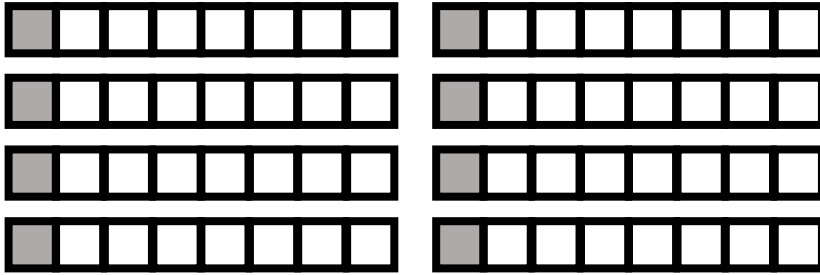
$$\frac{8}{1} \times \frac{1}{8} = \frac{8}{8}$$

7. You estimate that each of the other 12 people at your party (including you) will eat $\frac{1}{4}$ of a pizza. How much pizza would you need to buy for 12 people?

(Some students might draw circles to represent the pizzas)
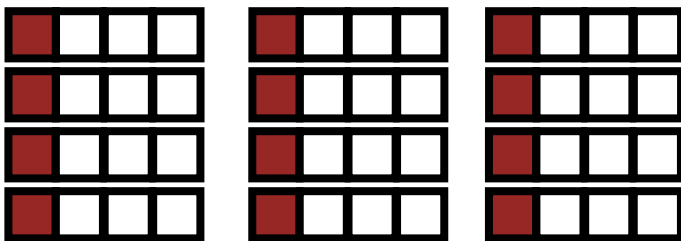
$$\frac{12}{1} \times \frac{1}{4} = \frac{12}{4}$$

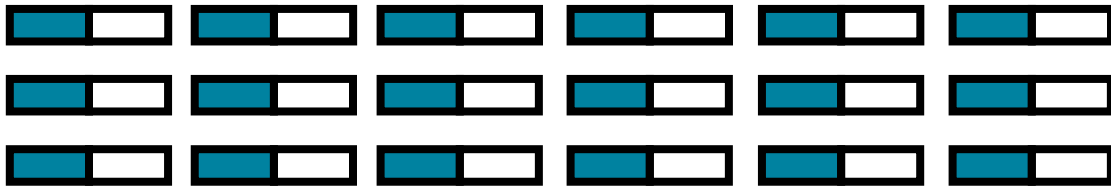8. You estimate that you and each guest will drink $\frac{1}{2}$ of a liter of beverage. How much beverage would you need to buy for the 18 people at your party?

$$\frac{18}{1} \times \frac{1}{2} = \frac{18}{2}$$

9. You want to put some decorative tiles around your kitchen counter. Your friend gives you 15 tiles that are each $\frac{7}{16}$ inches long. What is the total length of tile
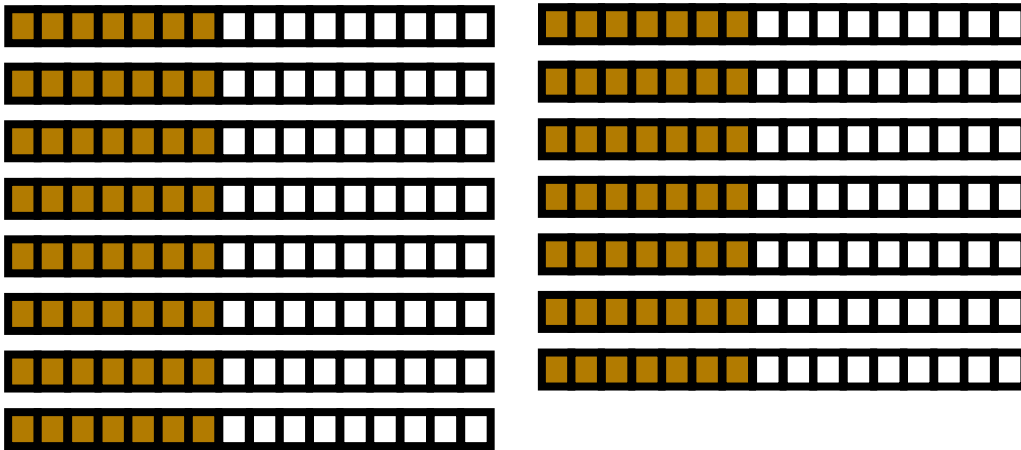
$$\frac{15}{1} \times \frac{7}{16} = \frac{105}{16}$$

10. You are applying wood preservative to a fence. Each section of the fence requires $\frac{3}{8}$ of a gallon. How much preservative do you need for 9 sections of fence?

$$\frac{9}{1} \times \frac{3}{8} = \frac{27}{8}$$

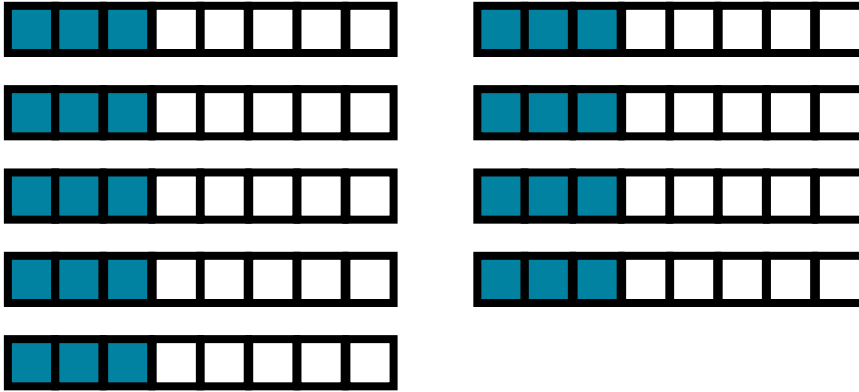**Find the answer for each of the following.**

11. $\quad \frac{1}{4} \times \frac{1}{4} = \frac{1}{16}$

12. $\quad \frac{3}{16} \times \frac{2}{3} = \frac{6}{48}$

13. $\quad \frac{1}{2} \times \frac{3}{4} = \frac{3}{8}$

14. $\quad \frac{1}{8} \times \frac{7}{4} = \frac{7}{32}$

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15. $\dfrac{7}{16} \times \dfrac{1}{2} = \dfrac{7}{32}$

For each of the following, write out the numbers and find the answer.

16. The owner of your neighborhood coffee shop says that $\dfrac{7}{8}$ of the coffee in her shop is fair trade coffee and $\dfrac{3}{4}$ is organic. How much of the coffee in her shop is both fair trade and organic? $\dfrac{21}{32}$

17. Each paycheck, $\dfrac{1}{5}$ of your total earnings are deducted from your pay. One-fifth of your deduction goes into a retirement account. What fraction of your total pay goes into your retirement account? $\dfrac{1}{25}$

18. You are installing the landscaping for a new building. Two-thirds of all of the plants are supposed to be evergreen and $\dfrac{2}{3}$ of all of the plants are supposed to be native species. What fraction of the landscape will be native evergreens? $\dfrac{4}{9}$

19. One-half of the energy for a new building is supposed to be generated by renewable energy. Solar power will be able to generate $\frac{9}{16}$ of the renewable energy. How much of the building's energy will be generated by solar power?

$\frac{9}{32}$

For each of the following, change the improper fraction to a mixed number.

20. $\frac{12}{4} = 3$

21. $\frac{17}{16} = 1\frac{1}{16}$

22. $\frac{19}{3} = 6\frac{1}{3}$

23. $\frac{13}{2} = 6\frac{1}{2}$

24. $\dfrac{31}{8} = 3\dfrac{7}{8}$

For each of the following, change the mixed number to an improper fraction.

25. $5\dfrac{1}{4} = \dfrac{21}{4}$

26. $2\dfrac{3}{16} = \dfrac{35}{16}$

27. $8\dfrac{2}{3} = \dfrac{26}{3}$

28. $12\dfrac{1}{2} = \dfrac{25}{2}$

29. $7\frac{3}{4} = \frac{31}{4}$

Find the answer for each of the following.

30. $8\frac{3}{16} \times \frac{1}{4} = 2\frac{3}{64}$

31. $4\frac{1}{4} \times \frac{3}{8} = 1\frac{19}{32}$

32. $5\frac{1}{3} \times \frac{1}{2} = 2\frac{4}{6}$ (or $2\frac{2}{3}$)

33. $6\frac{1}{32} \times \frac{1}{2} = 3\frac{1}{64}$

34. $7\frac{5}{8} \times \frac{3}{4} = 5\frac{23}{32}$

35. $1\frac{1}{2} \times 2\frac{1}{2} = 3\frac{3}{4}$

36. $6\frac{1}{8} \times 2\frac{1}{4} = 13\frac{25}{32}$

37. $1\frac{1}{3} \times 4\frac{1}{2} = 6$

38. $3\frac{1}{16} \times 3\frac{1}{4} = 9\frac{61}{64}$

39. $4\frac{2}{3} \times 2\frac{3}{4} = 12\frac{10}{12}$ (or $12\frac{5}{6}$)

40. It takes $\frac{1}{4}$ of an hour to install a light fixture in a building. How long will it take to install 15 light fixtures? $3\frac{3}{4}$

41. Switching from an incandescent lightbulb to an LED bulb can save $2\frac{4}{5}$ of a kilowatt each month. How many kilowatts would be saved by switching 16 incandescent bulbs to LED? $44\frac{4}{5}$

42. On the staircase below, the rise of each stair is $7\frac{1}{4}$ inches. What is the total rise of 5 stairs? $36\frac{1}{4}''$

$7\frac{1}{4}''$ {
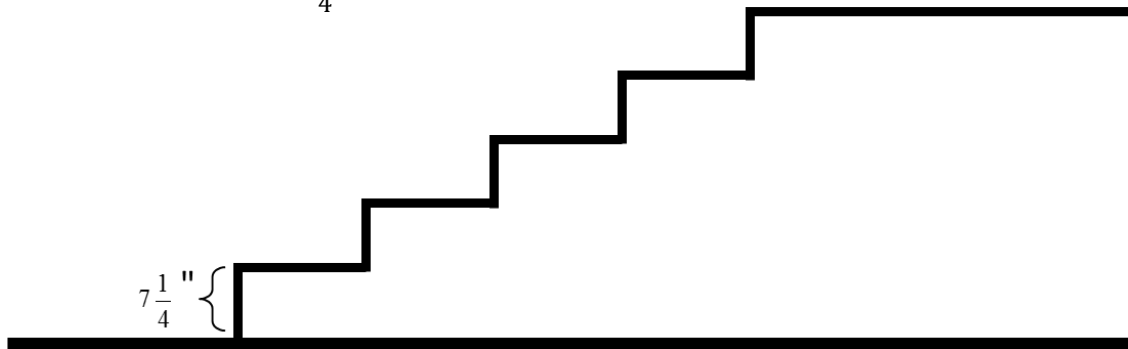
43. Each window requires 12 feet $3\frac{3}{8}$ inches of weather stripping. How much weather-stripping is needed for 6 windows? $73' 8\frac{1}{4}''$

Simplify each of the following fractions

44. $\frac{2}{6} = \frac{1}{3}$

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45. $\dfrac{4}{8} = \dfrac{1}{2}$

46. $\dfrac{12}{16} = \dfrac{3}{4}$

47. $\dfrac{32}{64} = \dfrac{1}{2}$

48. $\dfrac{10}{16} = \dfrac{5}{8}$